AUG 1 6 1924

Please return to be taken from the Library.

U. S. Gov't Master Specification, No. 149

DEPARTMENT OF COMMERCE

BUREAU OF STANDARDS

George K. Burgess, Director

CIRCULAR OF THE BUREAU OF STANDARDS, No. 173

[Issued July 8, 1924]

UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR THE CONSTRUCTION OF BUILT-UP ROOFING, TYPE 4ACS

FEDERAL SPECIFICATIONS BOARD, SPECIFICATION No. 149

This specification was officially adopted by the Federal Specifications Board on June 1, 1924, for the use of the Departments and Independent Establishments of the Government in the construction of built-up roofing, type 4ACS.

CONTENTS

		Page
I.	Type	1
II.	Material and workmanship	1
III.	General requirements	1
IV.	Detail requirements	2
	1. Materials	2
	2. Workmanship	2
	3. Application	2
V.	Inspection	3
VI.	Packing and marking	3
VII.	Additional information	3
VIII.	General specifications	3

I. TYPE

This roofing shall consist of four layers or plies of asphalt-saturated rag felt cemented together with asphalt and surfaced with slag, gravel, or similar surfacing material, as called for in the proposal for the work.

Flashings of the type required under the specification for the building shall be included and shall conform to United States Government Master Specifications for Flashings No. 156 or No. 157.

II. MATERIAL AND WORKMANSHIP

No details.

III. GENERAL REQUIREMENTS

No details.

105251°—24†

IV. DETAIL REQUIREMENTS

1. MATERIALS

Roofing of type 4ACS shall contain not less than the following quantities of materials per 100 square feet:

	Over concrete	Over gypsum
	Pounds	*Pounds*
Asphalt primer (F. S. B. Spec. No. 87)	7.5	15.0
Four layers asphalt-saturated rag felt (F. S. B. Spec. No. 86)	60	60
Asphalt for mineral surfaced roofing (F. S. B. Spec. No. 84)	150	150
Roofing gravel (F. S. B. Spec. No. 82)	400	400
or		
Roofing slag (F. S. B. Spec. No. 82)	300	300

2. WORKMANSHIP

The asphalt shall not be heated above 400° F., and shall be hot when the felts are laid.

The sheets of felt shall be laid so as to be free from wrinkles and buckles and so that pronounced ridges are not formed at the laps.

When the roof surface is of gypsum, each sheet of felt shall be nailed at approximately 6 inches from its upper edge with nails driven through flat tinned disks.

The surfacing material shall always be dry when applied, and, in addition, shall be heated in cold weather.

Concrete and gypsum surfaces installed by other contractors, before being considered satisfactory for laying the roof covering, shall be smooth, firm, dry, and free from high spots, depressions, and all loose and foreign material. Precast slabs shall be firmly set and well pointed.

When the roof surface is of gypsum, apply a second coat of primer after the first coat has dried, using not less than 1 gallon per 100 square feet.

3. APPLICATION

Roofing of type 4ACS shall be laid in the following manner:

(*a*) Coat the roof surface uniformly with asphalt primer, using not less than 1 gallon per 100 square feet and allow to dry.

(*b*) Over this apply a uniform coating of hot asphalt, using not less than 30 pounds per 100 square feet.

(*c*) Over this coating of asphalt lay four layers of 32-inch asphalt-saturated felt over the entire roof surface, lapping each sheet 24½ inches over the preceding sheet. Lap the ends of the sheets not less than 6 inches. When 36-inch felt is used, lap the sheets 27½ inches. Mop the full width of each lap with hot asphalt, using not less than 20 pounds per 100 square feet in each mopping. Cut off these layers of felt at abutting vertical surfaces.

(*d*) Mop the entire surface of this felt with a uniform coating of hot asphalt, using not less than 60 pounds per 100 square feet.

(*e*) Into this asphalt, while hot, embed the surfacing material.

V. INSPECTION

No details.

VI. PACKING AND MARKING

No details.

VII. ADDITIONAL INFORMATION

Roofing of type 4ACS is adapted to concrete and poured gypsum roof surfaces with inclines not exceeding 3 inches to the foot and shall not be used on inclines greater than this.

Roofing constructed in the manner specified is durable and should not require repairs or renewals on account of the action of the elements for a period of 20 years.

VIII. GENERAL SPECIFICATIONS

No details.

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
5 CENTS PER COPY

△